

REMARKS

Claims 1, 10-33, and claims 37-45 are pending in this application. Claim 1 has been allowed, claims 2-9 and claims 34-36 were previously canceled, and claims 10-33 are currently rejected.

Election/Restriction

Applicants note the withdrawal of claims 37-45 and respectfully reserve the right to pursue the subject matter of those claims in one or more continuing or divisional applications.

Allowed claim

Applicant notes with appreciation the indication on the Office Action summary that independent claim 1 is allowable. However, page 5 of the Office Action concludes "No claim is allowed." The Office Action contains no rejection of independent claim 1, either directly or by reference to a previous rejection. Accordingly, Applicant believes claim 1 is allowable without further amendment or comment. If this is not the case, any future action rejecting claim 1 should be non-final.

35 USC § 112

Claims 10-33 stand rejected under 35 USC § 112, first paragraph, for allegedly containing new matter. Applicant respectfully asserts that no new matter has been introduced by the previous amendments or by the amendments found herein. Applicant appreciates the examiner's efforts to clarify the rejections of the previous office action.

For clarification and background, the general nomenclature used in the database arts and throughout the specification and claims, is discussed here with reference to the attached printouts from a Database Glossary found on the internet (<http://databases.about.com/library/glossary>). A database is made up of one or more entities. Each entity further comprises one or more records.

Each record, in turn, comprises one or more fields. As described in the specification, and well-known in the art, an entity is a table in the database (see specification at page 5, line 27, page 24, line 13, and attached printouts), a record is one complete row (see attached printouts), while fields are found in columns (see attached printouts). Columns are also known as attributes (see p. 6, ln. 11, and attached printouts). Each column is designated as containing certain information, e.g. structure, molecular weight, melting point, address, phone number, etc. The information itself or data, can be referred to as an item. In the chemical setting, discussed in detail, each item represents a property of a chemical compound. Applicant's specification refers to both entities and tables, rows rather than records, and equates attributes with columns, and indicates that items and properties are best described as the data contained at the intersection of a row and column. While this is a somewhat simplistic explanation, it should suffice facilitate an understanding of the language of the claims and specification, and the amendments herein.

Claim 10 has been amended to address the concerns set forth in the Office Action and to more clearly present the invention. No new matter has been added.

Claim 10 has been amended to use the term "row" consistently throughout the claim. As discussed above, a row found in a table correlates to a single record. Again, those skilled in the database arts will readily appreciate this fact, as evidenced by the definition in the attached printout.

To alleviate the Office's concern over the term "correlate" in claim 10, and any special meaning that term may have, Applicant has replaced that term with "associate" as suggested and found throughout the specification. It is sufficient for Applicant's purposes here to know that a row is associated via the join based on the target item.

Claim 10 has also been amended, as helpfully suggested by the Examiner, to clarify that the fuzzy similarity join is based upon the target item. Importantly, it should be noted that one or more target item may be used as set forth in the dependent claims (see claims 14 and 15).

With respect to the disclosure of "all results to the user", Applicant respectfully asserts that the claim language "retrieving at least one row from the result of the join" encompasses this situation. However, for clarity, Applicant has clarified this by amending claim 10 to state that associated rows (however many there may be) resulting from the join are retrieved and each has an item similar to the target item.

Finally, with respect to claim 10, the office action on page 3 notes that the original claim and Table 6 (Applicant assumes this is meant to be Fig. 6) "use the identification of a target compound and a neighborhood range as input." The entirety of the specification reveals that the "target item" can be any item of information, including, for example, the structure of a chemical compound. In conformance with the nomenclature established by the specification and the art, as discussed above, a target item may be selected from any of the attributes (columns) of the database table. The claims, however, need not be limited to require a chemical compound as a target item. Page 14, at line 19-27, of the specification clearly indicates that not only may the targeted item be information on a property other than structure, but that the subject matter of the databases containing the target item and search items need not be chemical in nature at all. With respect to the neighborhood range, page 30 of the specification clearly states that although this information is necessary in some situations, in others it is not required. Accordingly, it need not be present in the independent claims.

Claims dependent from independent claim 10 have been amended in accordance with the above. Claims 10 and claims dependent therefrom now satisfy the requirements of 35 USC § 112. Withdrawal of the rejection is respectfully requested.

With respect to claim 23, much of the discussion above is relevant as well. The Office Action specifically questions the basis for methods based on a "property" of a target compound, and questions support for finding a target compound in a "second database" rather than in a "first database."

As discussed above, the items in the database are information or data concerning certain attributes (columns) in the database. In the chemical context, a single database row, contains one or more columns containing items of information more commonly referred to as chemical properties (or simply properties), i.e. structure, molecular weight, melting point, etc. As taught throughout the specification, any of these can be the basis for a fuzzy join. Thus, a "property of a target compound", in the sense that this is just another name for the information found "in a column" or "in a field" in a database, can be and is the basis of the join of the claimed method. Through the discussion here and the amendments above, Applicant hopes to clarify this point. Thus, use of the term "property" is somewhat particular to chemical databases in that such "properties" are in fact the items found in the columns for the various attributes.

With respect to the numbering of the databases, Applicant respectfully asserts that the numbering is merely a convenience for reference, and there is no special meaning or importance with one database being labeled first and another second. All that is important is that the target is known, actually, constructively, or virtually, and that it be compared to information in a database. In fact, the specification at page 32 at line 15, describing step 428 of Fig. 7, teaches that a join may be performed based on an item in a record in a database table and the remainder of that same database, just as a join can be performed on that database table and 1 or more additional databases. Applicants also note here, for completeness, that a database table can simply be a single record (row) having a single attribute (column), thus containing only one item of information or property, e.g. a chemical structure. This database can then be the subject of a

join with 1 or more additional database tables. Claim 23 has been amended to conform to the convention found in the specification wherein the target item is found in the first database. These remarks should remove any doubt as to the importance and effect of numbering the database tables.

As with claim 10, the specification clearly indicates that a neighborhood range need not be input.

Applicant respectfully asserts that claim 23 and claims dependent therefrom satisfy the requirements of 35 USC § 112. Withdrawal of the rejection is respectfully requested.

Conclusion

Applicant respectfully asserts that this paper is fully responsive to the outstanding Office Action and that all pending claims are now in condition for allowance. Accordingly, early reconsideration and allowance of all pending claims are respectfully requested. The examiner is requested to contact the undersigned attorney if an interview, telephonic or personal, would facilitate allowance of the claims.

Respectfully submitted,
COZEN O'CONNOR



Date: May 2, 2003

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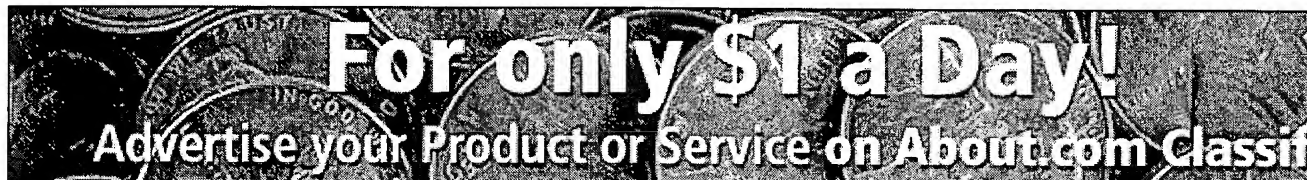


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Definition: A table in a relational database is a predefined format of rows and columns that define an entity.

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Definition: A [database](#) record consists of one set of [tuples](#) for a given relational [table](#). In a relational database, records correspond to [rows](#) in each table.

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Row

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Definition: In a relational database, a row consists of one set of attributes (or one tuple) corresponding to one instance of the entity that a table schema describes.

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Also Known As: Record

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Definition: Database tables are composed of individual columns corresponding to the attributes of the object.

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Example: In the following database table, the columns are <name, ID, extension>

Name	ID	Extension
Jim	124	7075
Valeri	128	0853
Bob	192	4214

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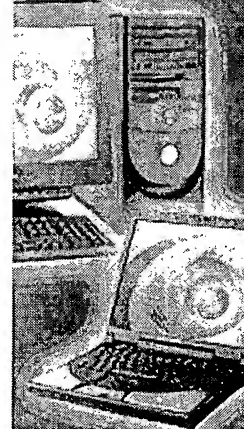
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Definition: A single data item related to a database object. The database schema associates one or more attributes with each database entity.

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Also Known As: field, column

Example: In the following database table, the attributes are <name, ID, extension>

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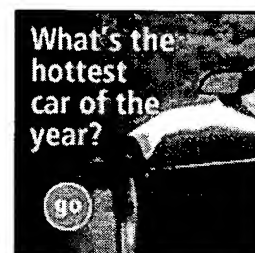
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Field

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Definition: A field is a single unit of data stored as part of a database record. Each record is made up of one or more fields, which correspond to the columns in a database table. Fields are often also referred to as attributes.

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